

**In the Claims:**

Please amend the claims as follows:

1. (Currently Amended) A bone substitute material comprising at least the following components:
  - a) a soft matrix, which is formed by mixing the living cells of b) with a fibrinogen solution and then a thrombin solution;
  - b) living cells, at least some of which are osteoblasts or precursors thereof;
  - c) a setting matrix, which is formed by mixing the soft matrix of a) with a setting material comprising an aqueous solution of non-ceramic hydroxyapatite cement.
- Claims 2 and 3. (cancelled).
4. (Currently Amended) A bone substitute material ~~as claimed in claim 2 or 3 of claim 1,~~ wherein the soft matrix further comprises  $\epsilon$ -aminocaproic acid or aprotinin.
5. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 1, wherein the soft matrix comprises at least one substance ~~which is~~ selected from the group comprising consisting of chondroitin sulfate, proteoglycans, sialoproteins, growth factors, hormones, ~~and~~ nucleic acids coding for growth factors ~~or~~ and hormones.
6. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 1, wherein the soft matrix comprises at least one substance selected from the group comprising consisting of biological collagen gel, gelatin, alginates, agarose, polysaccharides, synthetic collagen, hydrogels and viscous polymers.
7. (cancelled).
8. (Currently Amended) A bone substitute material as claimed in any ~~of the preceding one~~

of claims 1, 4, 5, or 6, which additionally comprises living angiogenic cells.

9. (Currently Amended) A bone substitute material ~~as claimed in of~~ claim 8, wherein the angiogenic cells are endothelial cells or ~~their precursor cells~~ precursors thereof.

Claims 10 and 11. (~~cancelled~~).

12. (Currently Amended) A bone substitute material ~~as claimed in of~~ any one of claims 1, 4, 5, 6 or 9 to 10, wherein the setting matrix comprises polyglycolic/lactic acid (PGLA).

13. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 12, wherein the setting matrix solidifies within 15 minutes.

Claims 14-27 (~~cancelled~~).

28. (Original) A device for preparing and administering a mixture comprising

- a) a mixing chamber with an outlet opening through which the mixture can emerge,
- b) a first supply channel (main channel) leading into the mixing chamber and
- c) one or more other supply channels (subsidiary channels) leading into the mixing chamber,

where the end of the subsidiary channel/the ends of the subsidiary channels are arranged in the mixing chamber so that material entering the mixing chamber from the subsidiary channel/subsidiary channels can penetrate into the material stream entering the mixing chamber from the main channel.

29. (Original) A device as claimed in claim 28, wherein the internal diameter of the main channel is at least 1 mm.

30. (Currently Amended) A device as claimed in claim 28-~~or 29~~, wherein the internal

diameter of the subsidiary channel/subsidiary channels is not more than 1.5 mm.

31. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 to 30, which comprises 3 to 5 subsidiary channels.

32. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 to 31, wherein the ends of the subsidiary channels in the mixing chamber are arranged essentially symmetrically around the end of the main channel in the mixing chamber.

33. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 to 32, wherein the end of the subsidiary channel/the ends of the subsidiary channels in the mixing chamber intersect with the imaginary extension of the main channel in the mixing chamber.

34. (Currently Amended) [[A]] The device as claimed in ~~any of claims~~ claim 28 to 33, wherein the supply channels are connected to storage containers from which the contents of the storage containers can be delivered into the supply channels.

35. (Currently Amended) [[A]] The device ~~as claimed in~~ of claim 34, wherein the storage containers are syringes.

Claims 36 and 37. **(cancelled).**

38. (New) **The device of claim 28, wherein said mixture is a bone substitute material comprising at least the following components:**

- a) **a soft matrix, which is formed by mixing the living cells of b) with a fibrinogen solution and then a thrombin solution;**
- b) **living cells, at least some of which are osteoblasts or precursors thereof;**
- c) **a setting matrix, which is formed by mixing the soft matrix of a) with a setting material comprising an aqueous solution of non-ceramic hydroxyapatite cement.**

39. (New) **The bone substitute material of claim 1, which is produced in a device for**

**preparing and administering a mixture, said device comprising:**

- a) a mixing chamber with an outlet opening through which the mixture can emerge,**
- b) a first supply channel (main channel) leading into the mixing chamber and**
- c) one or more other supply channels (subsidiary channels) leading into the mixing chamber,**

**where the end of the subsidiary channel/the ends of the subsidiary channels are arranged in the mixing chamber so that material entering the mixing chamber from the subsidiary channel/subsidiary channels can penetrate into the material stream entering the mixing chamber from the main channel.**